

ABSTRACT

Anti-reflective compositions and methods of using those compositions to form circuits are provided. The compositions comprise a polymer dissolved or dispersed in a solvent system. In one embodiment, the compositions comprise less than about 0.3% by weight of a strong acid. In another embodiment, the weight ratio of strong acid to weak acid in the composition is from about 0:100 to about 25:75. Examples of preferred weak acid compounds include phenolic compounds (e.g., Bisphenol S, Bisphenol A, α -cyano-4-hydroxycinnamic acid), carboxylic acids (e.g., acetic acid), phosphoric acid, and cyano compounds. The polymer and other ingredients are preferably physically mixed in a solvent system. The resulting compositions are spin bowl compatible (i.e., they do not crosslink prior to the bake stages of the microlithographic processes or during storage at room temperature).